

1. (previously presented) A method for producing an alcohol comprising
- (A) culturing *Escherichia coli* at a temperature between 20 and 30°C, wherein said *Escherichia coli* expresses a DNA comprising the Component A, B, and C genes of soluble-type MMO of *Methylococcus capsulatus*,
- (B) contacting an *Escherichia coli* cell or a processed product of the *Escherichia coli* cell with an alkane to convert the alkane into an alcohol, and
- (C) recovering the alcohol.

2-7. (Canceled).

8. (previously presented) The method for producing an alcohol according to claim 1, wherein said alkane comprises an alkane having between 1 to 8 carbon atoms, and said alcohol comprises an alcohol which is generated by oxidation of the alkane.

9. (previously presented) The method for producing an alcohol according to claim 8, wherein said alkane is methane, and said alcohol is methanol.

10. (currently amended) The method for producing an alcohol according to ~~claim 4~~claim 1, wherein said DNA is selected from the group consisting of:

- (a) a DNA comprising the nucleotide sequence of SEQ ID NO: 4, and
- (b) a DNA which hybridizes to the nucleotide sequence of SEQ ID NO: 4 under stringent conditions comprising washing with 0.1 x SSC, 0.1% SDS at 60°C.